SMALL BUSINESS INNOVATION RESEARCH
SMALL BUSINESS TECHNOLOGY TRANSFER

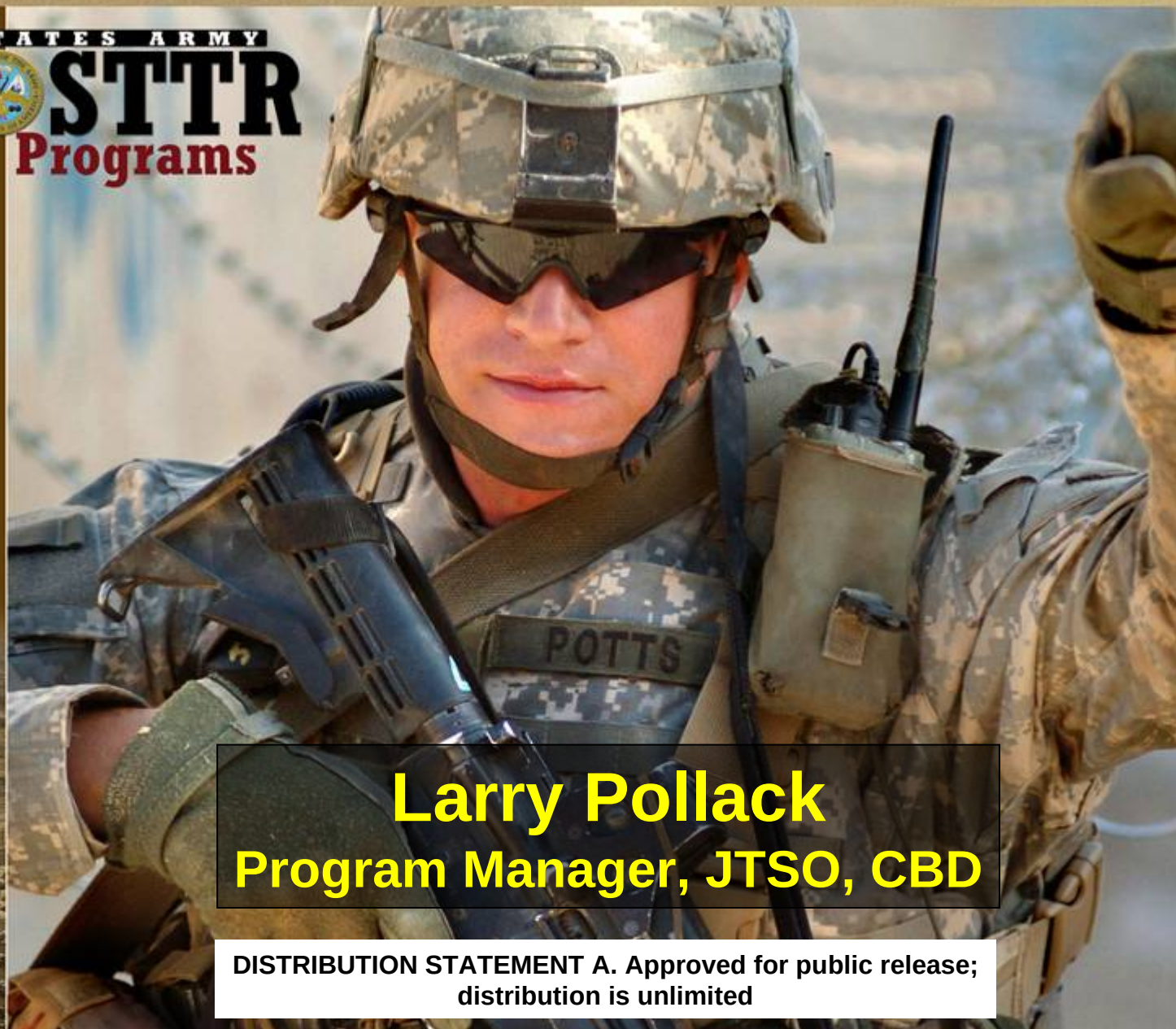
UNITED STATES ARMY

SBIR STTR Programs

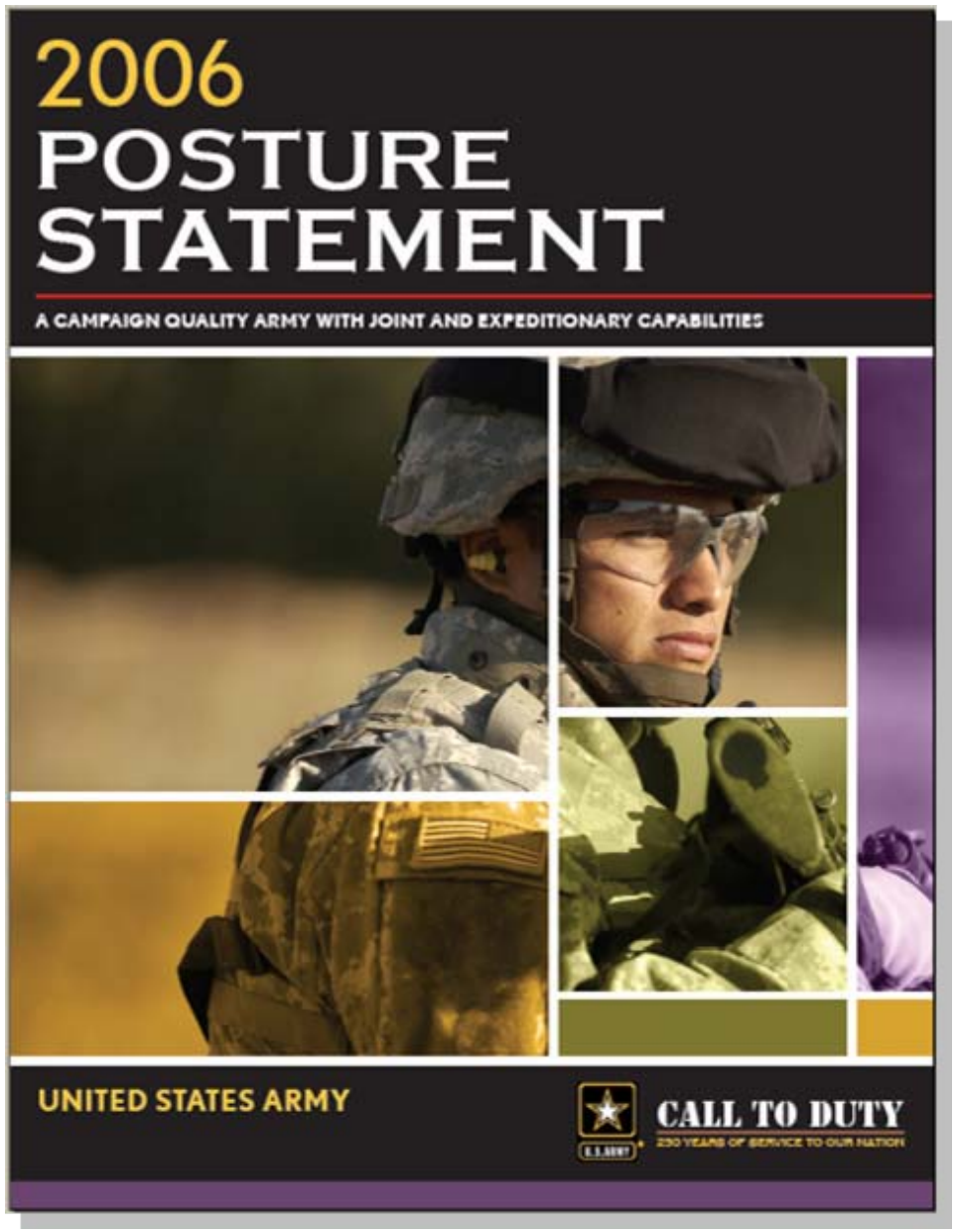
VISION

To be the Army's *premier source* of innovative technology solutions, providing direct access to America's high-tech small business research and development community, enabling our Soldiers deployed around the world.

11-14 Sep 2006



Larry Pollack
Program Manager, JTSO, CBD



Call to Duty

- ***Soldiers are the Army.*** It is the Soldier – well trained, equipped, and led – who serves as the ultimate expression of the capabilities the Army provides to the Joint Force and the Nation.
- The most potent weapon in the long struggle against terror will be our brave men and women in uniform.
- Those who honor and assist our Soldiers also answer the ***Call to Duty***.

Army SBIR Facts and Figures FY00-06

- **1,656 research topics…**
- **21,067 proposals from industry…**
- **3,408 contract awards…**
- **26 participating agencies…**
- **Over $1.2 billion in research…**

One mission…

Mission: *The Army SBIR program is designed to provide small, high-tech businesses the opportunity to propose innovative research and development solutions in response to critical Army needs.*

Force Operating Capabilities (FOC)

TRADOC Pamphlet 525-66 (1 July 2005)

http://www.tradoc.army.mil/tpubs/pams/p525-66.htm

- Battle Command
- Battlespace Awareness
- Mounted / Dismounted Maneuver
- Air Maneuver
- Maneuver Sustainment
- Maneuver Support
- Protection
- Strategic Responsiveness and Deployability
- Line of Sight / Beyond Line of Sight , Non-Line of Sight Lethality
- Human Engineering
- Training, Leader Development and Education

Provides <u>focus</u> for the Army's Science and Technology Master Plan

Army Science and Technology Focus

Army Posture Statement 2005

http://www.army.mil/aps/

- Networked battle command and logistics systems
- Networked precision missiles and gun-launched munitions
- Improved intelligence sensors
- Active and passive protection systems
- Unmanned ground and air systems
- Low-cost multispectral sensors
- Detection and neutralization of mines and Improvised Explosive Devices (IEDs)
- Identification of friendly forces in combat
- Development of medical technology for self-diagnosis and treatment
- Identification of hostile fire indicators
- Training systems

Topic Development, Requirements, & Linkages

TRADOC Gap Analysis

TRADOC 525-66 Force Operating Capabilities

Army Science & Technology Master Plan (ASTMP)

Army Technology Objectives (ATO)

PEO / PM Technology Needs and Risk Items

SBIR Topics Database

Innovative Solutions

Maintained ATO Linkage…

III.WP.2004.01 NLOS-LS Technology

Two Nested Plasma Antennas and Two Stacked Plasma Antenna Arrays *The Haleakala Research & Development Inc.*
Adaptive Bandwidth High Power RF Antenna *Astron Wireless Technoligies, Inc.*
On-Demand Gas Generator with Real-Time, Open-Loop Control System for Gel Propulsion *Stone Engineeing Company*
Protective Coating for ZnS Windows & Domes *Surmet Corporation*
In-situ Smart Corrosion Sensors for Army Missile Systems *Agirova Inc*
Magnetic Anti-tamper Sensor *NVE Corp.*
Consolidation of Nanograin Ceramics *CeraNova Corporation*

SBIR directly linked…

…supports ATO success

SBIR Supports Resolution of Capability Gaps

Lightweight Soldier & Platform Ballistic & CBRNE Protection

Technology Shortfall Areas

1. Lightweight Soldier & Platform Ballistic & CBRNE Protection
2. Secured, reliable Battle Command On-The-Move
3. Long range threat detection and ID, Automatic Target Recognition
4. Mobile & Fixed 360 degree hemispherical area protection
5. Multi-modal man-machine interface & manned / unmanned teaming
6. Perform automated Level 2 and 3 fusion
7. Vertically lift, maneuver & emplace FCS & Stryker class vehicles
8. Point Detection of explosive hazards from stand-off
9. Immersive live-virtual-constructive training environment
10. Improved reliability to reduce logistics footprint & O&S costs
11. Innovative energy sources and efficient power components
12. Scaleable Effects Versus Platforms and Personnel

Supporting Phase II SBIRs:

Viewbox Enhanced Wave-Guided Helmet Mounted	
Organically Modified Sol-Gel Nanocomposite for Li Protection	
A Novel Concept of Lightweight Composite Armor Vehicles	
Composite Structures for Ballistic Protection	
Waveguided Holographic Infrared Soldier-Mounted	
A Modular, Lightweight, Removable Ballistic Protection System for Aviation Helmets	SAFE, Inc.
Development of a Person-Portable GPS-Mounted Internet-Ready Explosive Sensor	Science and Technology Corporation
LIBS Sensitivity Enhancement by Microwave Plasma Spectroscopy	Envimetrics
Acoustic Landmine Detection: Interferometer-less Pulsed Laser Vibrometer For Landmine Detection	Brimrose Corporation of America
A Software Framework for Blast Event Simulation	Reaction Engineering International

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UNITED STATES ARMY
SBIR STTR Programs

Army SBIR Process

Topics

DoD Solicitation
SBIR YY.2
May thru July

$243M in FY06

Phase I

Feasibility Study
$70K, 6 Months

$50K Option
(Gap Funding)

~10% of proposals submitted selected

Phase II

Prototype Development
$730K, 2 Years

Phase II Plus - $500K matching funds, 1 Year

~50% invited proposals selected

Phase III

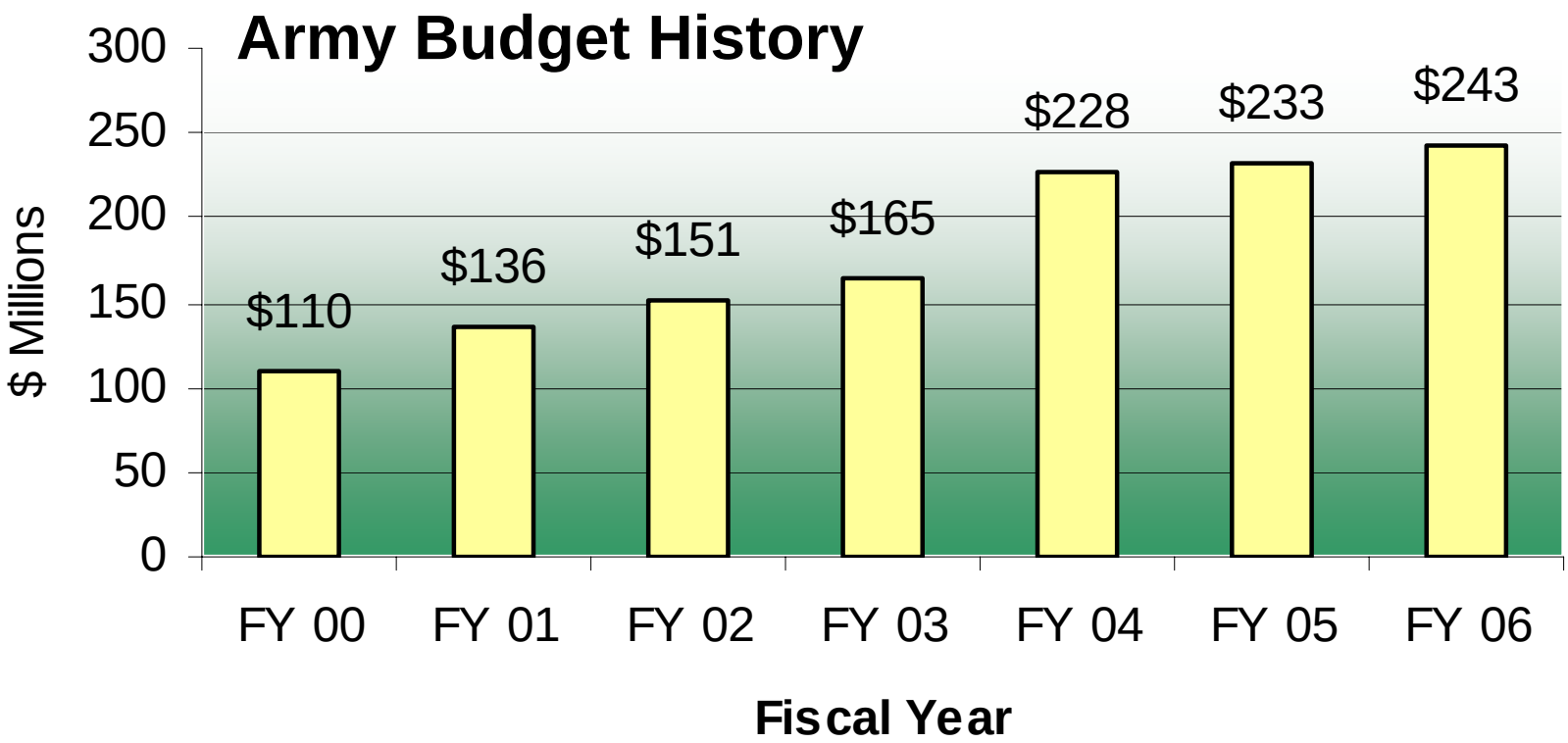
Commercialization
Transition to Federal Govt or Private Program

No SBIR Funds

Phase I + Phase II+ Phase II Plus = $1.35 Million

Army SBIR Award History

	FY01	FY02	FY03	FY04	FY05	FY06
Phase I Awards	317	354	352	356	371	TBD
Phase II Awards	151	180	222	237	259	221



Army SBIR Participating Organizations

Armament RD&E Center (ARDEC)
Army Research Institute (ARI)
Army Research Lab (ARL)
Army Test and Evaluation Center (ATEC)
Aviation and Missile RD&E Center (AMRDEC)
Communications-Electronics RD&E Center (CERDEC)
Edgewood Chemical Biological Center (ECBC)
Engineer Research and Development Center (ERDC)
Medical Research and Materiel Command (MRMC)
Natick Soldier Center (NSC)
Simulation and Training Technology Center (STTC)
Tank-Automotive RD&E Center (TARDEC)
Space & Missile Defense Command (SMDC)
Army Program Executive Offices (PEOs)

Army SBIR = *Improved Operational Capability*

Cockpit Air Bag System

Simula, Inc.

Phoenix, AZ

- Over $42M in DoD sales

UH-60A/L production contract; OH-58D completed qualification; AH-64D & CH-47D study programs

Innovative Communications and Electronic Warfare Antenna

FIRST RF Corporation

Boulder, CO

- $247K in DoD R&D

- Over $70M in DoD Sales

Over 12,500 units delivered through March 06.

FIDO Lightweight Integrated Explosives Detection System

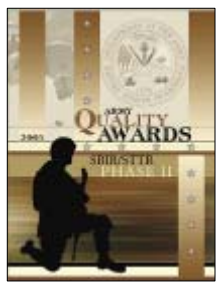
Nomadics – Stillwater, OK

-Over $10M in non-SBIR investment

Fielded on 8 Nov 2005 in Baghdad, Iraq

Army SBIR
Quality Awards Program

- **Recognizes Top Phase II Performers each year**
- **Phase II projects ending within year eligible for consideration may be nominated by sponsoring organization**
- **Selection board of Government & Industry Scientists and Businessmen**
- **Winners presented award in ceremony at Pentagon, hosted by a senior Army official**
- **Quality Award projects featured in annual Army SBIR Quality Awards brochure**



Small Business Technology Transfer (STTR)

- Encourages collaboration between small business and:
  - Universities
  - Non-Profit Research Institutions
  - Federally Funded Research & Development Centers (FFRDCs)
- Requires research institution partners (e.g., universities)
  - 40% minimum small business concerns (for-profit)
  - 30% minimum U.S. research institution (non-profit)
- $29.2M in FY06 Funding
- Phase I $100K, Phase II $750K
- No Phase I Option
- No Phase II Plus

	Solicitation Internet Release	Proposals Accepted Starting	Proposal Deadline	Contracts Awarded
STTR FYxx	Approx. Feb. 1	Approx. Mar. 15	Approx. April 15	Approx. Aug. 15

http://www.armysbir.com/sttr/sttr.htm

www.armysbir.com

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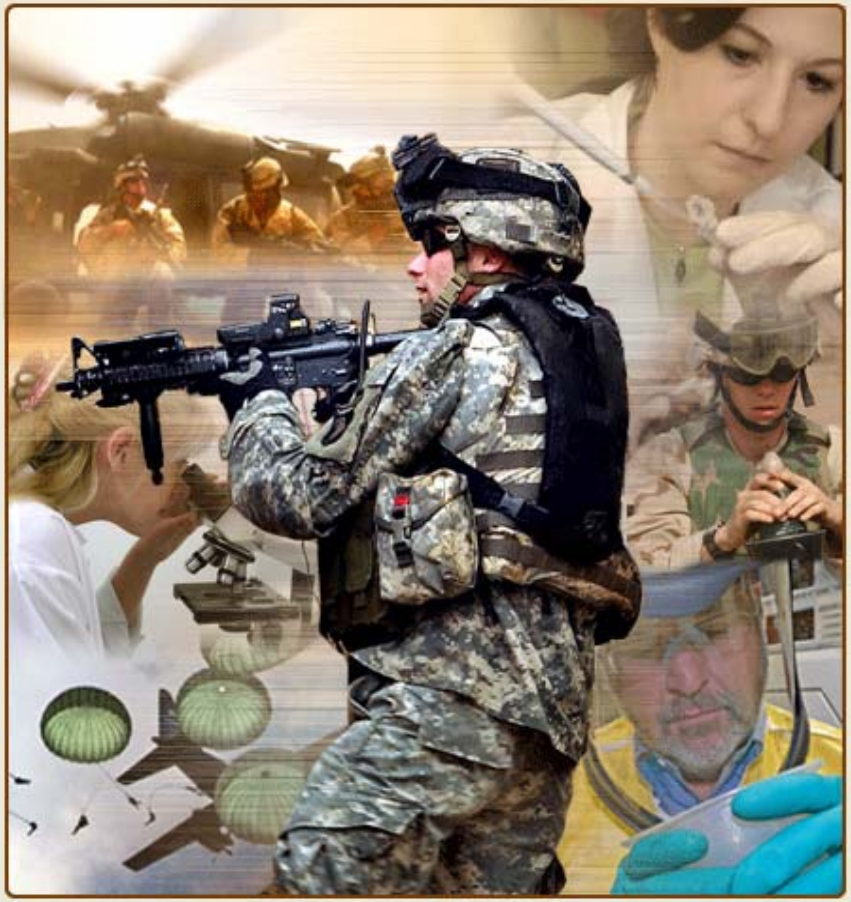
SMALL BUSINESS TECHNOLOGY TRANSFER

- SBIR
- STTR
- CBD SBIR
- Success Stories
- Small Business Portal



MISSION

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer Program (STTR) programs allow small, high-tech U.S. businesses (less than 500 employees) and academia the opportunity to provide innovative research and development solutions in response to critical Army needs. By capturing the tremendous and agile talents of the U.S. small business community, the SBIR and STTR Programs benefit the Department of Defense (DoD), the private sector, and our national economy.

This portal provides all the information necessary to participate in these programs.

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Additional Information / Questions

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